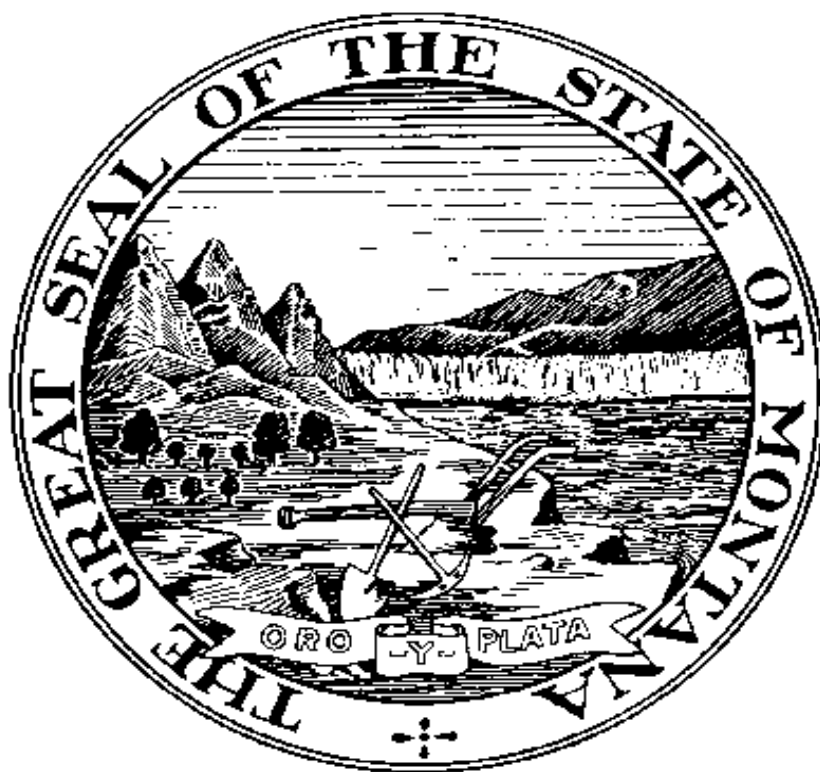


# **Scaffolding Safety Guidelines**

## **Occupational Safety & Health Bureau**



## **Montana Department of Labor & Industry**

**Prepared for Montana Employers  
by the**

**Occupational Safety & Health Bureau  
Department of Labor and Industry  
P.O. Box 1728  
Helena, Montana 59624-1728  
(406) 444-6401**

# **Safety Guidelines for Scaffolding**

## **General Industry Standards:**

**29 CFR 1910.28**

## **Construction Standards:**

**29 CFR 1926.450 Subpart L**

### **Introduction**

The purpose of the scaffolding safety program is to insure that falls and accidents do not occur and to reduce injuries to workers. Employers have the responsibility to protect their employees from work related hazards. This document can be used as a guideline for protecting workers using scaffolding, it is not intended to be totally inclusive but rather to highlight the OSHA standards.

The Occupational Safety and Health (OSHA) standards for scaffolding are found in 29 CFR 1910.28 for General Industry and 29 CFR 1926.450 for Construction. Employers should attain copies of the appropriate standard for their worksite. The OSHA standards are available from government and commercial sources, a list of resources can be found on page 5.

It is important the employers read and understand these standards. The employer should also assign a competent person to be in charge of a scaffolding and safety program for each site.

This person must understand the OSHA standards and should be experienced with scaffolding. The safety person should also have the authority to take actions and correct safety problems on the worksite. This authority can only come from the employer.

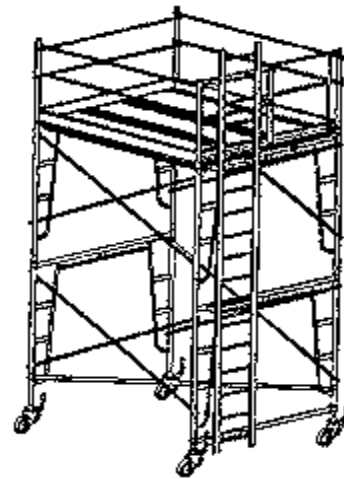
It is also important that employers that rent scaffolds also rent all of the required safety accessories such as guard rails and adjustable base plates. It may cost a little extra for these parts but can save employers from paying for injured workers or OSHA fines.

### **A. General Scaffolding Safety Guidelines**

- # Employers that lease or purchase scaffolding should make sure that the safety instructions are included with the equipment.
- # Scaffolding components should never be interchanged with components from a different manufacturer.
- # A competent person should supervise the construction of all scaffolding as well as participate in before and during shift inspections.
- # Inspect, maintain, and replace all parts of the scaffold and accessories that are in poor condition.
- # Scaffolds should support at least four times the anticipated weight of the workers and materials

that will be on them.

- # Keep scaffolds, platforms, runways, and floors free of ice, snow, grease, mud, or any other materials that could cause slipping.
- # Place scaffolding on firm, smooth foundation that prevents sideways movement.
- # Employees must not work on scaffolds during storms or high winds.
- # Overhead protection must be provided for persons on a scaffold exposed to overhead hazards.
- # Toe boards should be used to protect workers from tools and equipment falling from the platform.
- # Do not use scaffolding if the working platform is not planked all the way across.
- # All planking or platforms must be overlapped a minimum of 12 inches or secured from movement.
- # Tools, materials, and debris must not be allowed to accumulate in quantities to cause a hazard.
- # Wire or fiber rope used for suspension must be capable of supporting at least six times the intended load.
- # Do not use a scaffold if the planks are not scaffold grade, bearing the proper stamp.
- # Provide hard hats to all employees working in an area where objects can fall from above.
- # Do not use rolling towers unless the wheels are locked and never allow workers to ride on rolling towers while they are being moved.
- # Do not bridge between two scaffolds unless designed by a qualified person.
- # Do not use a scaffold taller than four times the minimum base unless it is tied, guyed, or braced to prevent tipping.
- # Provide a safe and convenient means for gaining access to the working platform.
- # Ladders used to access scaffolds should conform to the requirements of the applicable ladder standard. (A Portable Wood Ladders: OSHA Standard 1910.25" and A Fixed Ladders: OSHA Standard 1910.27.")
- # Workers should not carry materials as they climb. Keep both hands on the side rails or ladder.



- # Do not use heat producing activities such as welding or insulation removal without taking precautions to protect the scaffold workers.
- # Spacing between the platform and the uprights should be not more than 1 inch, unless it is demonstrated that the wider space is necessary.
- # Scaffold planks should extend over their end supports not less than six (6) inches not more than 18 inches.
- # Only qualified personnel who are physically and emotionally fit should erect and dismantle scaffolding.
- # Use two or more ladders for means of egress if necessary. When platforms are longer than 30 feet, large equipment is between workers and ladders, and anticipated continuous flow of traffic.
- # All platforms must be at least 18" ( two boards) wide.
- # Planks and platforms should be fastened to the scaffold as necessary to prevent uplift or displacement.
- # Platforms and planks must not be painted, this will hide defects.
- # Loads on the plank should be evenly distributed when possible.
- # Post safety rules for scaffolding in obvious places and make sure workers follow them.

## **B. Inspections and Testing of Planks**

Wood scaffolds should not be proof tested. This may result in concealed or unrecognized damage that may cause failure later. Wood planks bear a mark, stamp, seal, or other indication of the referenced standard on usage.

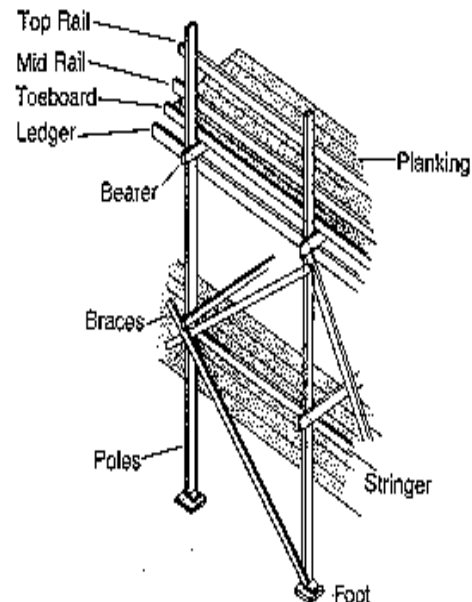
- # Examine the plank for large knots, excessive grain slopes, shakes, decay, and other defects that may render it unfit.
- # Do not use a scaffold if the planks are bowing more than 1/60 of their span.
- # Discard the plank upon visible or audible evidence of failure, or if it has an obvious defection.
- # Determine the safe load for a plank on its size and species.
- # Do not use rusty or corroded scaffold equipment, its strength is unknown.
- # Check for cracks around welds, joints, and circumference.
- # Check castors for damaged brakes, axles, or stems.

- # Check manufactured planking for missing hooks, locks, missing rivets, bent side rails, and damaged walking surfaces. If the surface is plywood, check for rotten areas.

### C. Fall Protection

Employers are required to protect their employees from falls. Fall protection standards are found in 29 CFR 1910.23 for General Industry and 29 CFR 1926.502 for Construction.

- # Each employee on a scaffold more than 10 feet above a lower level must be protected from falling.
- # Guardrail systems shall be installed along all sides and ends of platforms over 10 feet high.
- # Scaffolds made after January 1, 2000 must have a top guardrail height of between 38 inches and 45 inches above the platform surface.
- # Scaffolds made before January 1, 2000 must have a top guardrail height of between 36 and 45 inches above the platform surface.
- # Each guardrail must be able to withstand a force applied in any downward or horizontal direction of at least 200 pounds.



### D. Electrical Power Lines

- # The minimum clearances that must be maintained between scaffolds and exposed energized power lines are:
  - < 2 feet for insulated power lines of less than 300 volts; and
  - < 10 feet for insulated power lines of 300 volts or more and all uninsulated power lines (most power lines are not insulated).
- # Electrical conductive tools should not be used where they may contact power lines.
- # Evaluate each job site before any work is done to determine if there is a danger of overhead power lines coming in contact with workers.
- # Employers should inform workers about the hazards of erecting, moving, or working from scaffolds near overhead power lines.
- # Employers should notify the utility company when scaffolds must be erected or moved in areas with overhead power lines where the required clearances cannot be maintained. Utility companies can de-energize the power lines or cover them with insulating hoses or blankets before any work is

initiated.

- # Clearance between the power lines and scaffolds should be monitored by an observer.

## **E. Training**

OSHA training requirements for employees working on scaffolds is found in 1926.454. Listed below is a summary of the training requirements.

- # All employees that work on scaffolds must be trained by a qualified person in the hazards associated with the type of scaffold that is being used and how to control the hazards.
- # The training should include at least the following:
  - (1.) Electrical hazards, fall hazards, and falling object hazards.
  - (2.) Correct procedures for dealing with electrical hazards, using fall protection, and falling object protection systems.
  - (3.) Proper use of scaffolds, and proper handling of materials on the scaffold.
  - (4.) Maximum intended load and load-carrying capacities of the scaffolds used.
  - (5.) The correct procedures for erecting, disassembling, moving, operating, repairing, maintaining, and inspecting scaffolds.
  - (6.) The employer must train employees when new hazards appear at the worksite.
  - (7.) The employer must insure that the employees understand the training and must retrain if needed.

## **F. Resources**

Employers that use scaffolding should have copies of the OSHA Standards for Scaffolds. These standards should be reviewed and understood by the employer, supervisors, safety personnel, and employees involved with scaffolding.

Listed below are several sources for attaining OSHA Standards or CFRs as well as other information about Occupational Safety and Health:

1. **The Government Printing Office (GPO)** processes all sales and distribution of the CFR. For payment by credit card, call 202-512-1800, M-F, 8 a.m. to 4 p.m. e.s.t. or fax your order to 202-512-2233, 24 hours a day. For Payment by check write to Superintendent of Documents, Attn: New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954. For GPO Customer Service call 1- 202-512-1803.
2. U.S. Department of Labor, **Occupational Safety & Health Administration**, Public Affairs Office-Room 3647, 200 Constitution Ave., Washington, D.C. 20210.

Phone: 1-202-693-1999.  
[www.osha.gov](http://www.osha.gov)

3. **National Institute for Occupational Safety and Health.** Department of Health and Human Services, 200 Independence Ave. SW 317B, Washington, DC 20201.  
Phone: 1-800-356-4674, 1-800-35-NIOSH  
[www.niosh.gov](http://www.niosh.gov)

Regulatory references are also available in some commercial safety catalogs.

4. Lab Safety Supply Inc., P.O. Box 1368, Jansville, WI 53547-1368.  
Phone: 1-800-356-2501, Fax 1-800-393-2287  
[www.labsafety.com](http://www.labsafety.com)

5. J.J. Keller & Associates, Inc., 3003 W. Breezewood Lane, P.O. Box 368, Neenah, WI 54957-0368  
Free safety catalog available.  
Phone: 1-800-531-8899, Fax: 1-800-727-7547  
[www.jjkeller.com](http://www.jjkeller.com)

6. Business & Legal Reports  
Free safety catalogs and information.  
Phone: 1-800-727-5257  
[www.blrproducts.com](http://www.blrproducts.com)

7. Conney Safety Products, 3202 Latham Drive,  
P. O. Box 44190, Madison, WI 53744-4190  
Free safety catalog available  
Phone: 1-800-356-9100 Fax: 1-800-845-9095  
[www.conney.com](http://www.conney.com)

For any safety and health questions please call the Safety Bureau at (406) 444-6401.

